

I. Amendments to the Claims

1. (Currently Amended): A vehicle safety arrangement for a vehicle, the arrangement comprising:

a sensor unit comprising at least one sensor responsive to acceleration, the sensor unit being located substantially along a central longitudinal line of the vehicle, the sensor unit having a signal processor for sampling data gathered by the at least one sensor or more sensors;

~~at least one~~ an actuator for activating a safety device, the actuator being located remotely from the sensor unit; and

~~a velocity sensor; and~~

a control unit located remotely from the sensor unit and from the actuator and away from the central longitudinal line, the control unit being operable to receive information from the sensor unit ~~and the velocity sensor, to perform a crash algorithm using the information from the sensor unit and the velocity sensor,~~ and to transmit an actuation command to the actuator to activate the safety device, wherein the control unit comprises no sensor responsive to acceleration;

wherein the signal processor operates to perform a crash algorithm, which causes the signal processor to instruct the control unit to transmit the actuation command to the actuator.

2. (Original): A safety arrangement according to Claim 1, wherein the sensor unit is located on a central tunnel of the vehicle.

3. (Previously Presented): A safety device according to Claim 1, wherein the sensor unit comprises at least two sensors responsive to acceleration, which are configured to measure at least longitudinal and lateral acceleration of the vehicle.

4. (Previously Presented): A safety arrangement according to Claim 1, wherein the at least one sensor responsive to acceleration is configured to measure vertical acceleration of the vehicle.

5. (Previously Presented): A safety arrangement according to Claim 1, wherein the signal processor is operable to transmit the sampled data to the control unit.

6. (Cancelled).

7. (Previously Presented): A safety arrangement according to Claim 1, wherein the signal processor is operable to receive the output of a decision algorithm, which determines whether the vehicle is in a crash situation.

8. (Previously Presented): A safety arrangement according to Claim 7, wherein the decision algorithm is performed by the control unit.

9. (Previously Presented) A safety arrangement according to Claim 1, wherein the signal processor is operable to receive data from additional remote sensors.

10. (Previously Presented): A safety arrangement according to Claim 1, wherein the sensor unit comprises one or more sensors operable to measure an angular velocity of the vehicle around a longitudinal axis thereof.

11. (Previously Presented): A safety arrangement according to Claim 1, wherein the actuator comprises an ignitor for igniting a charge to activate the safety device.

12. (Previously Presented): A safety arrangement according to Claim 1, wherein the control unit comprises one or more capacitors configured to store sufficient energy to cause the actuator to activate the safety device.

13. (Original): A safety arrangement according to Claim 12, wherein the discharge of the one or more capacitors comprises the actuation command.

14. (Previously Presented): A safety arrangement according to Claim 1, wherein at least one actuator is located in a unit that also comprises a capacitor configured to store energy to activate the safety device, the capacitor being discharged to activate the safety device in response to the actuation command.

15. (Previously Presented): A safety arrangement according to Claim 1, further comprising at least one left side sensor on a left side of the vehicle and at least one right side sensor on a right side of the vehicle.

16. (Previously Presented): A safety arrangement according to Claim 1, wherein the control unit is connected to a main battery of the vehicle, and supplies power to the sensor unit and to the actuator.

17. (Previously Presented): A safety arrangement according to Claim 1, wherein the sensor unit has a smaller volume than that of the control unit.

18. (Previously Presented): A safety arrangement according to Claim 1, wherein the sensor unit has a volume less than half that of the control unit.

19. (Previously Presented): A safety arrangement according to Claim 1, wherein the sensor unit has a smaller mass than that of the control unit.

20. (Original): A safety arrangement according to Claim 19, wherein the mass of the sensor unit is less than half that of the control unit.

21. (Previously Presented): A safety arrangement according to Claim 1, wherein the sensor unit is provided on a single microchip.

22. (Cancelled).

23. (Cancelled).